

GOLODNIKOV, G.V.; MARKIN, G.Kh.

Synthesis and properties of trialkyl(p-bromophenoxy)silanes. Part 4.
Zhur.ob.khim. 33 no.10:3265-3266 0 '63. (MIRA 16:11)

1. Leningradskiy gosudarstvennyy universitet.

L 56051-65 EWT(m)/EWP(w)/EPF(c)/EPF(n)-2/EWA(d)/EPR/T/EWP(t)/EWP(z)/EWP(b)
Pr-4/PS-4/Pu-4 IJP(c) MJW/JD

ACCESSION NR: AP5010558

UR/0129/65/000/004/0053/0055
669.14:621.785

AUTHOR: Belov, Yu. A.; Markin, G. M.

TITLE: Nitriding of 25Kh5MA steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 4, 1965, 53-55

TOPIC TAGS: steel nitriding, steel hardness, nitriding catalyst, ammonium chloride, aniline / 25Kh5MA steel

ABSTRACT: A study of the change in layer depth and hardness was made under various conditions of nitriding 25Kh5MA steel. In a one-stage nitriding process, after a holding time of 15-16 hrs., the depth of the layer with a hardness of HV 820 does not increase and remains at 0.12-0.14 mm. As the holding time is increased, the layer with hardness HV = 550-300 grows to a slight extent, and after 16 hrs. the process slows down so much that further nitriding is useless. As the temperature is raised from 500 to 560C (for a 16-hr. holding time), the layer increases by about 0.1 mm, and the hardness decreases from HV 920 to HV 740. In a two-step nitriding process (first stage, 16 hrs. at 500C; second stage, 5, 10, 15 hrs. at 560C), the maximum hardness of the nitrided layer $HV \geq 820$ was observed.

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L 56051-65

ACCESSION NR: AP5010558

at a depth of 0.10-0.15 mm. ²⁷Ammonium chloride²⁷ and aniline were tested as catalysts for the acceleration of the nitriding process. With NH₄Cl, no appreciable increase in layer depth was obtained. ³Aniline increased the depth by 0.05-0.08 mm, but the depth of the very hard layer (HV 820, up to 0.15 mm) remained unaffected. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Yaroslavskiy zavod toplivnoy apparatury (Yaroslavl Fuel Apparatus Plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 002

OTHER: 000

Card ^{OR} 2/2

RYABCHINSKIY, P. G., MARKIN, I. A.

Peat Industry

Complete mechanization of cut-peat product on at the enterprise Pal'tso. Mekh. trud.
rab., 6, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

MARKIN, I.F., inzh.

The gas pipeline in Kislovodsk has gone into operation. Stroi.
truboprov. 6 no.11:24 N '61. (MIRA 15:4)
(Kislovodsk--Gas, Natural--Pipelines)

MARKIN, I.G.; YUROVA, Ye.I.; TSIKULAYEVA, K.I., normirovshchik

Exemplary assistant foreman. Tekst.prom. 19 no.8:61-62
Ag '59. (MIRA 13:1)

1. Nachal'nik tsekha Dreznenskoy fabрики (for Markin). 2. Nachal'-
nik byuro tekhnicheskoy informatsii Dreznenskoy fabрики (for
Yurova). 3. Dreznenskaya fabrika (for TSikulayeva).
(Textile workers)

MARKIN, I.I. · RABINOVICH, L.M.

Efficient exploitation of growing karri trees. Der.i lesokhim.
prom.3 no.4:24-25 Ap '54. (MIRA 7:5)

1. Teterevskiy khimleskhoz tresta Ukrleskhim.
(Tree tapping)

L 21717-65 EWT(1)/EWA(h) Feb ASD(a)-5/AFETR/RAEM(a)/ESD(o)/ESD(t)

ACCESSION NR: AP4044675

S/0120/64/000/004/0098/0101

AUTHOR: Kanevskiy, Z. M.; Tsabel', V. F.; Markin, I. I. B

TITLE: Generator of bell-shaped electrical pulses

SOURCE: Pribery i tekhnika eksperimenta, no. 4, 1964, 98-101

TOPIC TAGS: pulse generator, bell shaped pulse generator, variable duration pulse generator

ABSTRACT: A new pulse generator which produces bell-shaped pulses of 20-1,500-microsec duration at a repetition rate of 0.1-1,000 cps is described. The pulse shaping is based on a utilization of the nonlinear characteristics of electron tubes and is performed in two steps: (1) A parabolic-shape pulse corresponding to $U_1(t) = A_1 - \alpha_1 t^2$ is generated in a special stage; (2) This pulse is applied to an exponential-amplitude-characteristic stage described by $k(U) = A_2 e^{\alpha_2 U_1}$. As a result, a bell-shaped voltage $U(t) = A_2 e^{\alpha_2 U_1(t)} = A_2 e^{\alpha_2 (A_1 - \alpha_1 t^2)} = A_2 e^{\alpha_2 A_1} e^{-\alpha_2 \alpha_1 t^2} = A_2 e^{\alpha_2 A_1} e^{-\alpha_3 t^2}$

Cord 1/2

L 21717-65

ACCESSION NR: AP4044675

is formed at the output. Some details of the electronic circuit are supplied. The possibility of obtaining ball-shaped r-f pulses (by means of an additional unit) with frequencies 0.1-25 Mc is seen. Orig. art. has: 5 figures and 6 formulas.

ASSOCIATION: Voronezhskiy politekhnicheskiy institut (Voronezh Polytechnic Institute)

SUBMITTED: 27Jul63

ENCL: 00

SUB CODE: EC

NO REF SOV: 001

OTHER: 000

Card 2/2

MARKIN, I.I., polkovnik.

[The battle of Kursk] Kurskaia bitva. Moskva, Voen. izd-vo, 1953.

117 p.

(MLRA 7:5)

(Kursk, Battle of, 1943)

MARKIN, Il'ya.

Cord for ship models. Voenn. znan. 31 no.11:27 W '55. (MLBA 4:5)
(Ship models)

MARKIN, Il'ya

Through fire and attack. Sov.voin 38 no.16:4-7 Ag '56.

(MLRA 9:12)

(Kursk, Battle of, 1943)
(Tanks (Military science))

MARKIN, IL'YA.

In battles for the liberty and independence of the motherland. Voen.
sran. 33 no.2:6-7 P '57. (MLRA 10:4)
(World War, 1939-1945--Personal narratives)

MARKIN, I.P.

Methods for determining Mohr's integrals. Izv.vys.ucheb.zav.; stroi.
1 arkhit. no.5:57-62 ' 58. (MIRA 12:1)

1. Rosovski inzhenerno-stroitel'nyy institut.
(Integrals)

112-57-7-14525

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 7, p 112 (USSR)

AUTHOR: Markin, I. V.

TITLE: Ionic-and-Electronic Drive of Metal-Cutting Machines
(Ionno-elektronnyy privod metallorezhushchikh stankov)

PERIODICAL: V sb. Avtomatizatsiya tekhnologicheskikh protsessov v mashinostroyenii. Privod i upravleniye (Collection: Automation of Technological Processes in Machine Construction. Drive and Control of Machines), Moscow, AS USSR, 1956, pp 7-15

ABSTRACT: An ionic drive combined with an electronic-control system is capable of: providing automatic speed change while the machine is running; continuous speed regulation; or maintaining a constant working speed. Attempts to develop the system with a squirrel-cage motor have not proved successful so far. At present, the principal type of adjustable-speed drive still uses the DC motor. The highest operational characteristics are attained with controlled ionic devices in the armature circuit of the electric motor. The field winding may be supplied either from controlled valves or from an uncontrolled phanotron or

Card 1/3

112-57-7-14525

Ionic-and-Electronic Drive of Metal-Cutting Machines

from selenium rectifiers. A comparison is made between a grid-controlled ionic drive and a G-D system. It is pointed out that the generalized power factor -- the ratio of useful power to the apparent power consumed by the drive -- is higher with higher ionic-drive speeds. In machine-tool construction low-power ionic drives of a few kilowatts are used; usually, they include thyratrons. In the ELIR-type thyatron drives developed by ENIMS with capacities of 0.25-3 kw, rigid mechanical characteristics are obtained by means of current and voltage feedbacks, without resorting to a tachometer generator. The motor speed-regulation range varies from 8:1 (main-drive mechanism) to 120:1 (tool-feed mechanisms). The ELIR drive can easily be mounted in the machine-tool or in its control cabinet. The capacity of the ELIR drive is limited by the capacity of thyratrons available so far. Ionic drive can also be adequately used with medium-capacity machines. For such machines, ENIMS has developed an experimental drive with ignitrons up to 30 kw. Regulation of the rectified voltage and motor speed is performed by an electronic device that controls the firing of thyratrons connected in the igniter circuits of the ignitrons. Rigid mechanical

Card 2/3

112-57-7-14525

Ionic-and-Electronic Drive of Metal-Cutting Machines

drive characteristics are obtained by means of a speed feedback accomplished by a tachometer generator. With motor torque changing from 0.2 M_{rat} to 1.25 M_{rat} , the motor speed changes about its mean value by $\pm 2\%$ at $n_m = n_{rat}$ to 0.1 n_{rat} ; or by $\pm 4\%$ at $n_m = 0.1$ to 0.04 n_{rat} ; or by $\pm 8\%$ at $n_m = 0.04$ n_{rat} to 0.02 n_{rat} (m - mean, rat - rated). The system secures starting and reversing the motor with an automatic torque limitation. So far, the ELIR drives have inadequate reliability, basically due to the poor quality of thyristors and phanotrons.

S. M. D.

Card 3/3

GREEN, R.A.; MARKIN, I.V.; YATSKO, N.V.

Ballless conveying of half-finished skins in plants manufacturing
chrome-tanned leather. Obm.tekh.opyt. [MLP] no.27:45-49 '56.
(Conveying machinery) (MIRA 11:11)

MARKIN, I.V.

Engineers, technicians and innovators improve their qualifications.
Kozh.-obuv.prom. 4 no.8:48 Ag '62. (MIRA 15:8)
(Kursk—Leather industry) (Employees, Training of)

MARKIN, I.V.

Use of ferments in the leather industry. Kozh.-obuv.prom. 5
No.4:30-31 Ap '63. (MIRA 16:5)
(Leather) (Fermentation)

MARKIN, I.Ya.

Observations of eosinophilia in some forms of dermatosis. Vest.ven.
1 derm. no.3:54 My-Je '56. (MIRA 9:9)

1. Iz kafedry kozhnykh bolezney II MMI.
(BLOOD--DISEASES) (SKIN--DISEASES) (EOSINOPHILES)

STUDNITSIN, A.A., professor; SHARAPOVA, G.Ya., kandidat meditsinskikh
nauk; DENISOV, N.P.; MARKIN, I.Ya.

Results of using a preparation "antipsoriaticum" for the treatment of
psoriasis. Vest.ven. i derm. 30 no.5:53 S-0 '56. (MLRA 9:12)
(PSORIASIS) (OINTMENTS)

MARKIN, I.Ya.

Clinical aspects of ectomesodermal dysplasias. Vest. derm. i ven.
34 no.4:40-45 '60. (MIRA 13:12
(SKIN—ABNORMALITIES AND DEFORMITIES)

MARKIN, I.Ya.

External use of synthetic sex hormones in dermatitis and eczema. Vest.derm. i ven. 38 no.5:131-40. My 1963.
(MIA 1P 1.)
1. Kafed. i koryuyin kolezney (zav. - prof. M.M. Markin) in
Mirovskoye yuzhnoyevskoye (zav. - prof. M.M. Markin) in
May 10, 1963.

MARKIN, K.

Machinery-industry workers look toward the future. NTO 6 no.1:20-0.
Ja '64. (MIRA 17.0)

NAME: MR. E. VALENTIN, JR. MARLIN, TEXAS

the 1990s, the number of people in the United States who are 65 years of age or older is projected to increase from 20 million to 35 million, and the number of people 75 years of age or older is projected to increase from 10 million to 15 million (U.S. Census Bureau, 1996). The number of people 85 years of age or older is projected to increase from 2 million to 4 million (U.S. Census Bureau, 1996). The number of people 90 years of age or older is projected to increase from 500,000 to 1 million (U.S. Census Bureau, 1996). The number of people 95 years of age or older is projected to increase from 100,000 to 200,000 (U.S. Census Bureau, 1996). The number of people 100 years of age or older is projected to increase from 10,000 to 20,000 (U.S. Census Bureau, 1996).

1. Бернскыи университет (Берн) не имеет права на издание книги «Словарь» «Словарь» «Словарь».

MARKIN, K. F.

14(10); 3(5)	PHASE I BOOK EXPLOITATION	90V/2843
	Sovetskaniye po razlomu i'nyy sposobam fundamantostroyeniya na vchomernykh gruntakh	
	Trudy... (Translations of the Conference on Efficient Methods of Building Foundations on Permafrost Soils) Moscow, Gosstroyizdat, 1959. 131 p. Errata slip inserted. 1,200 copies printed.	
	Ed. of Publishing House: M. M. Borshchevskaya; Tech. Ed.: Ye. L. Yemkina.	
	PURPOSE: This book is intended for construction engineers, indus- trial planners and builders.	
	COVERAGE: This book contains reports originally read in Vorukta in 1958 on experience gained in planning and building foundations in permafrost regions of the USSR. The reports were prepared for publication in the NIIOSP (Scientific Research Institute for the Study of Foundations and Underground Structures). The introduction was written by Professor V. O. Bulychev. No references are given.	
	Belanin, V. P. Construction Conditions and the Exploi- tation of Mining Enterprises in the Pechora Coal Basin	47
	Zhil'tsov, A. L. Construction of Industrial Plants on Permanently Frozen Ground With Subsequent Settling	56
	Markin, K. F. Designing Pile Foundations Under Permafrost Conditions	58
	Pchelintsev, A. M. Special Characteristics of Foundation Building in the City of Igarka	64
	Reklov, S. A., and V. M. Yodolashkin. Methods of Restoring the Deformed Principal Buildings in Vorukta	67
	Yegorov, V. M. Analysis of Work and Computing the Rein- forced Concrete Frame Foundations and Pile Works, Taking Into Account Uneven Settling of the Bearing Ground	75
	Yegorov, V. M., and V. M. Sokolova. New Data on Frost Heaving of Foundations	100
	Shchelokov, K. K. Decreasing the Depth of Foundation Laying by Keeping the Ground in a Frozen State	109
	Kravchenko, I. K. Frost Heaving of Ground and Foundations (discussion)	113
	Chaknitsillo, A. M. Non-Soviet Experience in Building Foundations on Permanently Frozen Ground	119
	Zorkhayaev, A. V. Maximum Thawing of Perennially Frozen Ground Under Heated Buildings (two-dimensional solution)	124
	Boyko, L. K. Settling of the Foundations of Industrial Structures of the Vorkutaugol Combine	127
	AVAILABLE: Library of Congress	

MR Wash
1-18-60

Card 4, 4

MARKIN, K.F.

Design of pile foundations in permafrost grounds. Trudy Gos. inst.
po proek. mor. por. i sudrem. pred. no. 6:35-55 '59.

(MIRA 14:3)

(Piling(Civil engineering))
(Frozen ground)

MARKIN. K.F.

Design of foundations of buildings to be erected on permafrost.
Osn., fund.i mekh.grun. 3 no.2:22-23 '61. (MIRA 14:.)
(Foundations) (Frozen ground)

1. KAZAKOV, S. P., MARKIN, M. A.

2. USSR (600)

4. Nozzles

7. Multiple-channel nozzle with mechanical vibrators. Dost. sel'khoz.
no. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified

MARKIN, M.A.; KAZAKOV, S.P.

Testing sprinkler apparatus and machines and calculating their hydraulic
power. Mekh. i elek.sel'khoz. no.4:40-46 Ap '53. (MLRA 6:5)
(Sprinklers)

MARKIN, M.A.

2A Nowyi Elektricheskiy Pribor dlia Zamera Pul'satsii Davleniia. ~~Step~~
M. A. Markin. Izmeritel'naya Tekhnika, Sept.-Oct., 1956, pp. 49-52.
In Russian. Design and description of an apparatus for measuring
pressure pulse.

Typed clipped abstract

SLP
mji

MARKIN, M.A. (Nizhniy Tagil)

Work of a nurse in the department of occupational diseases in
the mining industry. Med. sestra 22 no.6: 28-30 Je '63.

(MIRA 16:9)

(NURSES AND NURSING) (MINERS —DISEASES AND HYGIENE)

1. MARKIN, M. D.
2. USSR (600)
3. Machine-Tractor Stations
4. Work practice of the Ul'ianovsk Machine-Tractor Station in strengthening the feed supply.
Korm.baza; No. 12 - 1952.

9. Monthly List of Russian Accessions, Library of Congress, February, 1953. Unclassified.

L 13284-66 EWT(d)/EWT(m)/EWP(w)/EWP(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/

ACC NR: AP6001105

(N)

SOURCE CODE: UR/0136/65/000/012/0074/0076

AUTHOR: Molodchinin, Ye. V.; Tsypser, V. A.; Markin, M. G.

EWP(z)/EWP(b)/EWP(l)/
EWA(c)/ETC(m) IJP(c)
MJW/JD/HW

ORG: none

TITLE: The equipment and technological lubrication for the hot rolling of tubes of AMg6 aluminum-magnesium alloy

SOURCE: Tsvetnyye metally no. 12, 1965, 74-76

TOPIC TAGS: aluminum base alloy, magnesium alloy, hot rolling, metal tube, lubricant / AMg6 Al-Mg alloy

ABSTRACT: Since the alloy AMg6 displays highest plastic properties in the temperature range 120-220°C, the rolling of tubes from this alloy is best performed on maintaining these temperatures over the area of deformation. In this connection the authors describe a method of stabilizing rolling technology by preheating the skelp to 100-150°C in an induction heater mounted directly on the KhPT type tube mill. The low-frequency induction-heating installation, operating on industrial-frequency current, consists of an inductor, a 300-kva stepdown transformer, a capacitor battery, a start-up panel, and busbars. The inductor itself (Fig. 1) represents a solenoid coil wound in two layers of rectangular copper tube 14x14 directly on circular stainless-steel liner 1. Insulation 2 of the 23 turns of the coil is of herringbone tape impregnated

Cord 1/3

UDC: 669.715:621.771.2

L 13284-66

ACC NR: AP6001105

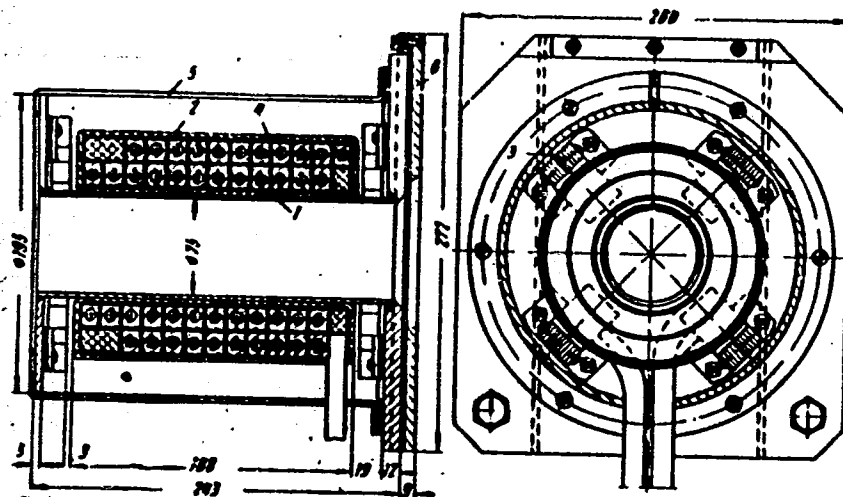


Fig. 1. Inductor for hot rolling of tubes in KhPT-75 tube mill

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L 13284-66

ACC NR: AP6001105

with bakelite varnish. To reduce magnetic leakage, four magnetic circuits are installed over the outside diameter of the inductor. The magnetic circuits and inductor winding 4 are insulated against lubricant contamination by housing 5 made of stainless sheet steel. The inductor is affixed to the bed of the rolling mill by means of plate 6. During rolling the friction of skelp at joints leads to the continual formation of metal chips which, unless promptly washed away by the lubricant, may enter the zone of deformation and adhere to the tools, thus causing imprints on the tubes. In this particular case the lubricant must be preheated to 60-80°C before applying it to the deformation zone. The authors tested a large number of the lubricants most suitable for operation in the temperature range 100-200°C. Unfortunately, so far not one has completely met the requirements, since at these temperatures heavy cylinder oils decompose and smoke and, moreover, are difficult to remove from the inside and outside tube surfaces. As for the spindle oil used for the cold rolling of tubes in tube mills, if applied in cold state it causes the cooling of the preheated skelp and hence the cracking of the tubes. The industrial introduction of the warm rolling of tubes of high-strength Al-Mg alloys has resulted in increasing by 30-40% the productivity of KhPT tube mills as well as in increasing by 5-7% the proportion of defect-free tubes. Orig. art. has: 2 figures.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

3/3

MARKIN, M. I.

27253

Razmnofyeniye Vinograda. Dvukhlazkovymi Odznyeveyesnyevsnimi I Zyelyenymi Shveryenkami.
Vinodyeliye I Vinogradarstvo Moldavii, 1949, No. 4, S. 29-33.

SO: LETOFIL NO. 34

MAREIN, I. I.

27254. MAREIN, I. I.-- Razmnozhenie vol. prada zelenom. otvornami. Vopr. i
v. nogradarstvo SSSR, 1986, no. 3, s. 5-11.

SO: Letopis' Zhurnal'nykh St. tex, Vol. 36, 1989

MARKIN, M. I.

Viticulture

Planting of vineyards with green seedlings; Sad. i og. no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May, 1952, 1 vol.

MARKIN, M. I.

Viticulture

Fruitful work of the collective in the Molotov State Farm. Vin. dokl. 1958. No. 6, 1958.

Monthly List of Russian Accessions, Library of Congress, August 1958. MOULD 1958B.

1. MARKT, M.

2. USER (600)

4. Viticulture

7. Net of ...

9. Mental List of Resources ...

1. MARKIN, M.I.
2. USSR (600)
4. Hormones (Plants)
7. Action of growth promoting substances on shoots and transplants, Vin. SSR 13 no. 4, 1953.

9. Monthly List of Russian Accessions. Library of Congress, APRIL

MARKIN, M. I. Cand Biol Sci -- (diss) "The working out of bases ~~of~~ ^{the} propagation of ~~wine~~ by short, lignified, and green grafts." Mos, 1967. 17 pp (Mos Order of Lenin Agr Acad im K. A. Timiryazev), 110 copies (KL, 43-57, 88)

5(4)

AUTHORS:

Knorre, D. G., Mayzus, Z. K.,
Markon, M. I., Emanuel, N. M.

SV, 76-33-1-16, 21

TITLE:

The Kinetics of the Valence Changes of Manganese Stearate in
the Course of the Initial Macroscopic Stage of the Catalytic
Oxidation of n-Decane (Kinetika valentnykh prevrashcheniy
stearata margantsa v khode nachal'noy makroskopicheskoy stadii
katalizirovannogo okisleniya n-dekana)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, 11-15
(USSR)

ABSTRACT:

A short time ago it was found (Refs 1-3) that on the oxidation
of n-decane (1) several changes take place in the laurates and
stearates of manganese and cobalt. A valence change of the
catalyzer takes place which causes its falling out and becoming
ineffective (Ref 4). In the case under discussion the kinetics
of the accumulation of colored intermediate products of these
catalyzers are investigated. The oxidation of (1) took place in
a way already described. The samples were examined in the wave
length of 400 m μ by the spectrophotometer SF-4. It is stated
that the effective activation energy of the accumulation of the
intermediate products of manganese stearate is 0.1 kcal on the

Card 1/2

The Kinetics of the Valence Changes of Manganese Stearate in the Course of the Initial Macroscopic Stage of the Catalytic Oxidation of n-Decane SOV/76-37-1-36/41

oxidation of (I), whereas the activation energy of the further reduction of the intermediate compound is 16.1 kcal. The absorption coefficients of the intermediate compound were determined in cumene (since it is simpler than in (I)); and at 400 m μ the value 780 l/g-mol cm was found. Beer's (ber) law is followed up to a catalyzer concentration of 0.016 m (Fig 7). Tests with (I) tetralin, and cumene showed that the absorption coefficient of the intermediate compound obviously does not depend too much on the hydrocarbon to be oxidized (Fig 6). The kinetic curves of the accumulation of colored intermediate products show an initial acceleration (Fig 7). At the curve maximum cumene and tetralin show a complete transition of manganese stearate to a higher valence stage and (I) a 50% transition only. There are 8 figures and 4 Soviet references

ASSOCIATION: Akademiya nauk SSSR Institut khimicheskoy fiziki, Moskva
(Academy of Sciences USSR, Institute of Chemical Physics,
Moscow)

SUBMITTED: July 17, 1957

Card 2/2

Information of the following type is to be supplied, except as indicated otherwise, in the following order:

1. The reaction of (I) with H_2 in the 30-40°C spectrum is
 2. The reaction of (I) with H_2 in the 30-40°C spectrum is
 3. The reaction of (I) with H_2 in the 30-40°C spectrum is
 4. The reaction of (I) with H_2 in the 30-40°C spectrum is
 5. The reaction of (I) with H_2 in the 30-40°C spectrum is
 6. The reaction of (I) with H_2 in the 30-40°C spectrum is
 7. The reaction of (I) with H_2 in the 30-40°C spectrum is
 8. The reaction of (I) with H_2 in the 30-40°C spectrum is
 9. The reaction of (I) with H_2 in the 30-40°C spectrum is
 10. The reaction of (I) with H_2 in the 30-40°C spectrum is

2000 2001

$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$, where L is the Lagrangian function.

Direction of the Reaction between ... and Various ...

12 references, 5 of which are given.

ASSOCIATION: Akademiya nauk SSSR, Institut Khimicheskoy fiziki,
(Academy of Sciences, USSR, Institute of Chemical Physics,
Moscow)

SUBMITTED: July 17, 1967

Card 3, 3

TIKHOMIROVA, N.N.; MARKIN, M.I.; NIKOLAYEVA, I.V.; VOYEVODSKIY, V.V.

Interaction between molecular oxygen and the free valences of coal.
Probl. kin. i kat. 10:426-428 '60. (MIRA 14:5)

1. Institut khimicheskoy fiziki AN SSSR.
(Oxygen) (Charcoal)

20989

26.2312

AUTHORS: Lavrovskaya, G. K., Markin, M. I., Gal'roze, V. L.

TITLE: Exchange of charge between ions on complex molecules

PERIODICAL: Kinetika i kataliz, v. 2, no. 1, 1961, 21-37

TEXT: Processes within the energy range 10^{-1} to 10^1 - 10^2 ev involve two elementary processes: (I) exchange of heavy particles and molecular regrouping, and (II) exchange of charge which may be accompanied by dissociation. Process (II) which may occur in the case of comparatively slow ions has been little investigated as yet. The present work was undertaken with a view to clarifying this process on complex systems and establishing the extent of competitive occurrence of (I) and (II). It studies the exchange of charge between monoatomic and polyatomic ions in the energy range 10-500 ev. The mass spectrometer used is shown in Fig. 1. Primary ions produced in the ion source 1 by ionizing gas with 60-ev electrons were accelerated to 110-500 ev and separated according to mass in the magnetic analyzer 1 (angle of deflection 60° , $r = 10$ mm). Ions of specific mass were passed through the collector slit 1 (10 mm).

Card 1/15

20989

3, 1956, 6/15, 1956
B101/15 16

Exchange of charge between ions ...

into the charge exchange chamber 3. The secondary ions formed in it were deflected at right angles to the beam of primary ions by a weak magnetic field extending into the chamber, accelerated to 1500-2000 V, and separated in the magnetic analyzer II (600°, r = 200 mm). In chamber 3, secondary ionization could also be excited by electrons emitted from cathode 4.

The vacuum in the charge exchange chamber was 10^{-6} - $5 \cdot 10^{-7}$ mm Hg. The primary ion current was 10^{-8} - 10^{-7} a, measured by an electrometer amplifier (a). 5 is an electron multiplier tube, 6 are the deflecting electrodes. Charge exchange was measured on CH_4 , C_2H_6 , C_3H_8 , C_2H_4 , C_3H_6 , C_2H_2 , NH_3 , and N_2H_4 . As primary ions the authors used (1), NH_4^+ , Na^+ , CH_4^+ , CH_3^+ , CCl_3^+ , Xe^+ , Zn^+ , Hg^+ (for which the recombination energy was lower than the ionization potential of the molecule), and Ar^+ , N_2^+ , H^+ , H_2^+ , H_3^+ (possessing high recombination energies). The experimental data are listed in Tables 1-5. The first columns of these tables indicate the values of m/e in atomic mass units, the potentials

Card 2/15

209P9

U. S. S. R. ...
B. I. ...

Exchange of charge between ions ...

at which ions of that mass occur being given in parentheses. The second columns give the mass spectra as obtained by ionizing the respective molecules with 60-ev electrons. The following columns indicate the mass spectra as obtained by exchange of charge with the ions listed in the first line. The recombination energies are given below the symbols of the primary ions. The amperage I of the secondary ions is given relative to the sum of amperages of all ions produced. The thermal effects of ion formation also appear in the tables. The last line refers to the relative cross section calculated from $\sigma_{rel} = \sigma / (\sigma_{A^+} - \sigma_{A}) = i_{A^+} (dI/dP) / i (dI_{A^+}/dP_{A^+})$, where i_{A^+} denotes the current of primary A^+ ions, I_{A^+} the current of secondary A^+ ions, i the current of primary ions, I the sum of currents of separated secondary ions formed at exchange of charge of the primary ions on the respective molecule, P the argon pressure, P the pressure of the gas under investigation. The mass spectra were taken with primary ions of energy 300-500 v, and a potential of 200 v applied to the drawing electrode. It was found that in the energy

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Exchange of charge between ions ...

S, 195, 51, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

range 10^1 - 10^3 ev the transition of kinetic energy to internal energy by charge exchange becomes easier with increasing complexity of the molecule. The cross sections of the charge exchange processes are, therefore, considerable even close to the threshold of endothermic processes, and must be large for exothermic processes, even at low temperature. Consequently, these processes are of considerable importance in real systems (radiation chemistry, reaction during discharge, ion formation in flames, processes in the upper layer of the atmosphere). Basing on these results, all ion-molecule interactions may be divided into processes with and without formation of a long-lived intermediate ion. One of the two mechanisms is realized depending on the kinetic energy of the collision. The authors thank A. K. Lyubimova and A. Bulatova, Technician, for their assistance, G. K. Karachevtsev, student, for cooperating in several experiments, and Academician I. I. Gerasimov for discussions. N. N. Tunitskiy, Ye. L. Frankovich, A. I. Yul' and A. M. Bukhteyev are mentioned. There are 5 figures, 5 tables, and 23 references. 9 Soviet-bloc and 14 non-Soviet-bloc. The references to English-language publications read as follows: B. J. Burton et al.,

Card 4/15

20989

Exchange of charge between ions ...

S/195/61/002/001/003/006
B101/B216

J. Amer. Chem. Soc., 26, 1302, 1957; F. H. Field, F. W. Lampe, J. Amer.
Chem. Soc., 80, 5587, 1958; D. R. Bates, Proc. Roy. Soc., A257, 22, 1960.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of
Chemical Physics of the AS USSR)

SUBMITTED: October 31, 1960

Card 5/15

KARACHEVTSEV, G.V.; MARKIN, M.I.; TAL'ROZE, V.L.

Pulse method study of the charge exchange of Ar^+ , Li^+ , He^+
thermal ions on CH_4 , C_2H_6 , C_2H_4 molecules. Izv. AN SSSR.
Otd.khim.nauk no.8:1528 Ag. '61. (MIRA 14:8)

1. Institut khimicheskoy fiziki AN SSSR.
(Mass spectrometry)
(Ion sources)

43222
S/844/62/000/000/006/129
D290/D307

AUTHORS: Litrovskaya, G. K., Markin, N. I. and Tal'roze, V. L.

TITLE: The elementary processes of charge transfer from slow ions to polyatomic molecules

SOURCE: Trudy 11 Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 48-51

TEXT: The authors studied the process of charge transfer from slow ions to polyatomic molecules in many different reactions in order to infer charge transfer cross-sections at thermal energies in endothermic reactions or to deduce the behavior of the cross-sections near the threshold energy for endothermic reactions. The effects were investigated of He^+ , A^+ , Xe^+ , N_2^+ , H^+ , H_2^+ , H_3^+ , NO^+ , NH_3^+ , CH_3^+ , CH_4^+ , CCl_3^+ , Zn^+ , Hg^+ , and other ions on molecules such as CH_4 , C_2H_6 , C_2H_4 , C_3H_8 , C_3H_6 , $(\text{CH}_3)_2\text{CO}$, NH_3 , N_2H_4 , and others.

Card 1/2

The elementary processes ...

3/844,62,000/010,000
5210/0507

ers; the energies of the ions ranged from 10 to 1000 eV. A double mass spectrometer was used. The authors discuss the results in which the experimental results provide evidence for the occurrence of dissociative charge transfer, the ease of conversion of kinetic and internal energy, the effect of the presence of metastable excited ions in the initial beam, and the formation of complex intermediate ions. It is concluded that the ease of conversion of kinetic into internal energy and vice versa increases sharply with increasing complexity of the molecule and that, therefore, the charge transfer cross sections in exothermic reactions become larger at thermal energies. There are 3 figures.

ASSOCIATION: Institut Khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AS USSR)

Card 2, 2

LAVROVSKAYA, G.K.; MARKIN, M.I.; TAL'ROZE, V.L.

Using the ion recharging method in the mass spectrometric determination of radicals formed in the pyrolysis of acetone, di-tert-butyl peroxide and hydrazine. Trudy Kom. anal. khim. 13:474-482 '63. (MIRA 16:5)

1. Institut khimicheskoy fiziki AN SSSR.
(Radicals (Chemistry)) (Mass spectrometry)

L 10434-65

EWI(m)/EPF(c)

Pr-4

AS(mp)-2/RAEM(s)/ESD(c)/AFWL/AEDC(b)/

ASD(a)-5/SSD/ESD(gs)/ESD(t)/RAEM(t)

RM

8/0195/64/005/003/0377/0387

ACCESSION NR: AP4041059

AUTHOR: Karachevtsev, G. V.; Markin, M. I.; Tal'roze, V. L.

TITLE: Pulse mass-spectrometry for studying elementary processes of recharge of thermal ions on molecules

SOURCE: Kinetika i kataliz, v. 5, no. 3, 1964, 377-387

TOPIC TAGS: mass spectrum, pulse, ionization pulse, expansion pulse, inert gas, heavy gas, hydrocarbon, light hydrocarbon, ionization chamber, resonance, thermal ion recharge, iono molecular reaction, reference gas, ionization velocity constant, Eyring equation, excited ion, excited Xe ion, radiation chemistry, plasma discharge, ionosphere, ion current intensity

ABSTRACT: This method has been developed to study the above processes and is presented. It was selected to obtain iono-molecular reactions under conditions where the energy of the primary ions approaches that of the thermal energy. The authors modified it to weaken the masking effect of the primary ion spectrum; this is particularly effective when the primary ion is much heavier than the second. It was used for Ar^+ , Kr^+ and Xe^+ on the molecules CH_4 , C_2H_4 and C_2H_6 . The ions

Cord 1/3

L 10434-63

ACCESSION NR: AP4041059

formed from light hydrocarbons are able to reach the ionization chamber walls faster than those of the heavy inert gas, resulting in an increase of the ratio of concentration of secondary ions (forming upon recharge of the heavy inert gas ions on the hydrocarbon molecules) to concentration of primary hydrocarbon ions. The ionization pulse was 10 volt/10 microseconds, expansion 150 v/7 microseconds. Equipment for the tests is figured, and formulas for the ionization and expansion periods presented. With the pulse method, the intensity of the ion current in the mass spectrum of the hydrocarbon grew somewhat slower than linearly with increase of the inert gas pressure in the ionization chamber. Reference gas was used for correction of electrostatic effects. It was shown that for the processes under study the velocity constant lies in the range of $10^{-9} - 10^{-8} \text{ cm}^3 \cdot \text{sec}^{-1} \cdot \text{molecule}^{-1}$ and that the distribution of intensity in the recharged mass spectra coincides for practical purposes with the distribution observed in the recharge on these molecules of the ions Ar, Kr and Xe with an energy of 300 electron volt (Myring equation for reaction cross section). A discussion of the results led to conclusions on the predominance of the resonance mechanism in these processes. Reactions with participation of excited ions are shown, such as $\text{Xe}^+(^2P_{1/2}) + \text{CH}_4 = \text{Xe} + \text{CH}_4^+ + 0.44 \text{ ev}$. The iono-molecular interaction was studied under conditions most characteristic for radiation chemistry, ionosphere, certain types of plasma

Card 2/3

L 10434-65

ACCESSION NR: AP4041059

discharge etc. Orig. art. has: 26 formulas, 5 figures and 1 table.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Physical Chemistry AN SSSR)

SUBMITTED: 05Jul62

ENCL: 00

SUB CODE: GP, NP

NO REF SOV: 006

OTHER: 012

Card 3/3

L 29540-66 EWT(1)/EWT(m) IJP(c) JW/AT
ACC NR: AP6007769 SOURCE CODE: UR/0195/66/007/001/0003/0010
AUTHOR: Markin, M. I.; Tal'roze, V. L.
ORG: Institute of Chemical Physics, AN SSSR (Institut khimicheskoy fiziki AN SSSR)
TITLE: Study of the effect of kinetic energy of relative motion on the cross section of an ion-molecule reaction 2/
SOURCE: Kinetika i kataliz, v. 7, no. 1, 1966, 3-10
TOPIC TAGS: collision cross section, oxygen, hydrogen ion, ion energy
ABSTRACT: The dependence of the ratio of cross sections of the reactions
$$\text{H}_2^+ + \text{O}_2 \xrightarrow{\sigma_1} \text{O}_2\text{H}^+ + \text{H}; \quad (I)$$
$$\text{H}_2^+ + \text{O}_2 \xrightarrow{\sigma_2} \text{O}_2^+ + \text{H}_2. \quad (II)$$
on the kinetic energy of H_2^+ ions in the range of 3 to 20 eV was investigated. A

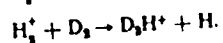
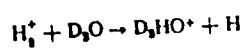
Card 1/2

UDC: 541.124

L 29540-66

ACC NR: AP6007769

mass spectrometer was used in the study. The ion source consisted of two chambers: primary ions were formed in one, and secondary in the other. Pulsed ionization and extraction methods were used to separate these ions. It was noted that the first process virtually does not take place if the energy of the ions becomes greater than 15-20 eV; this is attributed to a decrease in the lifetime of the intermediate complex ion $[O_2H_2]^+$ since during its formation, a considerable part of the kinetic energy of the ion changes into the excitation energy of this complex. A similar behavior of the cross sections with rising kinetic energy of the ion has also been established for the reactions



The authors thank S. V. Nikitin, who participated in the experiments. Orig. art. has: 5 figures.

SUB CODE: 07/ SUBM DATE: 12Jun64/ ORIG REF: 004/ OTH REF: 009

Card 2/2

PB

MARKIN, M. S.

B. T. R.
Vol. 3 No. 4
Apr. 1954
Operations Research and
Management Engineering

(3)
Testing of Application of Statistical Methods in
Analysis and Control of Foundry Production. (Russian)
A. I. Antonov, P. I. Kantor, and M. S. Markin. Izvestia
Proizvodstva, 1953, no. 8, Aug., p. 20-24.
Introduction of method assisted in administration and reduced
spoilage. Diagram, graphs, tables. 2 ref.

9-16-54
20P

MIKHAL'CHENKO, V.M. [Mykhal'chenko, V.M.]; MISNICHENKO, O.M.;
MARCHENKO, T.I.; MIKHAYLOVA, M.Y. [Mykhailova, M.I.];
SHVED, M.P.; OSTAPENKO, M.G. [Ostapenko, M.H.];
BULDEY, I.A.; MARKIN, M.S., glav. red.; OSTAPENKO, M.G.
[Ostapenko, M.H.], otv. za vyp.; MINEVICH, M.I. [Minevych,
M.I.], tekhn. red.

[Soviet trade in the Ukrainian S.S.R.; statistical
abstract] Radians'ka torhivlia v Ukrains'kii RSR; statystyc-
nyi zbirnyk. Kyiv, Derzh. stat. vyd-vo, 1963. 318 p.
(MIRA 16:9)

1. Ukraine. Statisticheskoye upravleniye. 2. Otdel statistiki
torgovli TSentral'nogo statisticheskogo upravleniya pri sovete
ministrov Ukr. SSR (for Mikhal'chenko, Misnichenko, Marchenko,
Mikhaylova, Shved, Ostapenko, Buldey). 3. Nachal'nik TSentral'-
nogo statisticheskogo upravleniya Ukr.SSR (for Markin).
(Ukraine--Commerce) (Ukraine--Statistics)

MARKIN, M.T.

Intensify the work of measuring laboratories in factories. Izv.
tekhn. no. 1:3-4 Ja '61. (MIRA 14:1)
(Testing laboratories)

MARKIN, N., mayor

Platoon for radiation and chemical reconnaissance in an attack. Voen.
vest. 41 no.12:98-99 D '61. (MIRA 15:3)
(Atomic warfare--Safety measures) (Chemical warfare--Safety measures)

L 52114-65

ACCESSION NR: AP5015347

UR/0286/65/000/009/0094/0095
681.142.652

AUTHOR: Antonov, V. V.; Markin, N. I.

TITLE: A device for winding information coils for a permanent transformer memory using resettable ferrite cores. Class 42, No. 170763

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 94-95

TOPIC TAGS: coil winder, resettable core, ferrite core memory

ABSTRACT: This Author's Certificate introduces a device for winding information coils for a permanent transformer memory using resettable ferrite cores. The mechanism is designed for improving the efficiency of the core winding process, increasing the space factor of the core opening and storage volume and increasing the signal-to-noise ratio (improving the quality and reliability of the winding). The device contains a balanced rotating disc with coil forms mounted along the circumference and movable sectional teflon guides located on the outside edge of the disc beyond the coil forms. The guides are situated parallel to the longitudinal axes of the coil forms to make smooth shaping slots opposite the direct axes of symmetry of

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L 52114-65

ACCESSION NR: AP5015347

the forms. The shaping slots are spaced to equal the technological output of a bundle of information coils from the cores. The device also has signal flags located next to each coil form.

ASSOCIATION: none

SUBMITTED: 16Oct63

ENCL: 01

SUB CODE: IE, DP

NO REF SOV: 000

OTHER: 000

Card 2/3

L 52114-65

ACCESSION NR: AP5015347

ENCLOSURE: 01

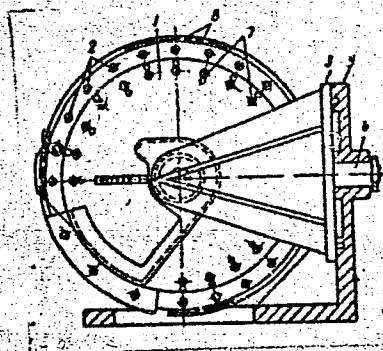


Fig. 1. 1--balanced rotating disc;
2--coil forms; 3--bracket; 4--pivot;
5--base; 6--teflon guides; 7--signal
flags

Card 3/3 MB

MARKIN, N.M.; MIRONOV, K.N.

Stratigraphy and facies of Paleocene and Miocene sediments in the
northwestern shores of the Kamchatka-Tigil' area. Avtoref. nauch.
trud. VNIGRI no.17:202-205 '56. (MIRA 11:6)
(Kamchatka Valley--Geology, Stratigraphic)
(Tigil' Valley--Geology, Stratigraphic)

MARKIN, N.M.

Geological investigation of the eastern shores of Penzhina Bay.
Trudy VNIGRI no.102:5-41 '57. (MLRA 10:9)
(Penzhina Bay--Geology)

MARKIN, N.M.

Tertiary deposits of the eastern shores of Penzhina Bay. Trudy
VNIGRI no.102:42-95 '57. (MLBA 10:9)
(Penzhina Bay--Geology, Stratigraphic)

ANTONENKO, B.F., inzh., MARKIN, N., inzh.

Modernization of double-sided turning-and-boring lathes. Ma-
shinostroenie no.6/12-14 N-2 '64 (MIRA 18/2)

SHNURKO, I.I., inzh, MARKIN, N.S. inzh.

Modernization of the "Vespa" plane. Mashinostroenie no. 6.1.16-16
N-D '64 (MIRA 18x2)

ACC NR: AT6022243

SOURCE CODE: UR/0000/66/000/000/0017/0023

AUTHOR: Markin, N. P.

ORG: none

TITLE: Analysis of diode logic converter circuits

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966.
Sektaiya elektronno-vychislitel'noy tekhniki. Doklady. Moscow, 1966, 17-23

TOPIC TAGS: computer circuit, digital decoder, logic circuit

ABSTRACT: Diode matrix decoder circuits whose internal states are uniquely determined by the signal combination at their inputs are analyzed. These include binary to decimal converters and coding and decoding circuits. Greater emphasis is placed on logic converters driven by binary ring counters in which one output is associated with each input combination. Multiple-tree and cascaded stage circuits are compared. In an attempt to find a configuration which uses the minimum number of diodes the author concludes that the greatest advantage to be gained is when a two-group double stage decoder is used. Less optimal in this sense are tree circuits and two-group stage decoders. He also notes that decoders with more than two states become complex and the number of serially connected diodes increases giving rise to additional problems. Orig. art. has: 4 formulas and 4 figures.

SUB CODE: 09/ SUBM DATE: 26Apr66/ ORIG REF: 002/ OTH REF: 002

Cord 1/1

1. MARKIN, V. V.

2. USSR (600)

4. Lathes

7. Transverse list for lathe. West mast No. 9 1962.

9. Monthly List of Russian Accessions. Library of Congress, April 1962.

MARKIN, Petr Petrovich, starshiy predavatel'; PEKHER, Ioel' Iosifovich,
kand.tekhn.nauk, dotsent

Apparatus using small strip sample of steel for determining the
magnetic characteristics of sheet steel used in electrical
engineering. Izv. vys. ucheb. zav.; elektromkh. 3 no.7:99-102
'60. (MIRA 13:9)

1. Novocherkasskiy politekhnicheskii institut.
(Sheet steel--Magnetic properties)
(Magnetic instruments)

MARKIN, Petr Petrovich, starshiy prepodavatel'

Electronic system of a ferrite tester for testing permanent magnets.
Izv.vys.ucheb.zav.; elektromekh. 5 no.4:437-443 '62. (MIRA 15:5)

1. Kafedra avtomaticheskikh i izmeritel'nykh ustroystv
Novocherkasskogo politekhnicheskogo instituta.

(Magnets--Testing)

(Electronic apparatus and appliances)

MARKIN, r.P.

Electronic ballistic galvanometer. Trudy inst. Kom.stand.mer :
izm. prib no.64:100-102 '62. (MIRA 16:5)
(Galvanometer)

MARKIN, P.P.; PEKKER, I.I.

"Ferrotester" for permanent magnets. Trudy inst. Kom.stand.mer i
izm. prib no.64:139-144 '62. (MIRA 16:5)
(Magnets--Testing) (Cathode ray oscillograph)

MARKIN, P.P.; PEKKER, I.I.

Equipment for the testing of magnetically soft materials. Trudy
inst. Kom.stand.mer i izm. prib no.64:187-190 '62. (MIRA 16:5)
(Magnetic materials) (Cathode ray oscillograph)

3314⁸
S/120/61/000/006/016/041
EO32/E114

26 2312

AUTHORS:

Bolotin, L.I., Markin, P.S., and Meleshkov, S.I.

TITLE:

A pulse source of multiply charged ions with magnetic beam separation

PERIODICAL:

Pribory i tekhnika eksperimenta, no.6, 1961, 86-88

TEXT:

The source is capable of producing multiply charged ions with energies up to 40 kV, focussed into a spot 15 mm in diameter. The beam currents are as follows: 1.4 mA (N^{+4}), 1.5 mA (N^{+3}), 2 mA (N^{+2}). The multiply charged ions are produced in the plasma of a high-power arc discharge. The source is illustrated schematically in Fig.1a (1 - stainless steel, 2 - porcelain, 3 - titanium). The anode is made of copper and the cathode of titanium. Water cooling is not necessary. The anode is insulated from the cathode by porcelain insulators and the position of the stainless steel extractor can be adjusted without releasing the vacuum. The discharge chamber is placed in a magnetic field of 4000 Oe produced by 100° sector electromagnet with a gap of 10 cm (average radius of ion trajectory 15 cm)

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S/120/61/000/006/016/041

E032/E114

A pulse source of multiply charged...

The symmetric disposition of the cathode relative to the anode leads to a longitudinal oscillation of the ionizing electrons which reach their maximum energy at the mid-point of the discharge channel (length 40 mm, diameter 8 mm). The slit through which the ions are extracted (15 x 2 mm) is placed in the latter position. The location of the source in the magnetic field is such that the extracted ions will have travelled through one quadrant when they leave the magnetic field in the 90° focal plane. Thus, ions with equal e/m have parallel trajectories, which facilitates the subsequent formation of the beam. The discharge is excited by 10 kW square pulses. The extraction is achieved by means of 40 kW square pulses. The discharge and extracting pulses are synchronized with the aid of a two-channel delay line. The system is evacuated by two diffusion pumps M-1000 (M-1000) (3×10^{-6} mm Hg in the accelerating tube). There are 3 figures, 1 table and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The English language references read as follows:

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A pulse source of multiply charged .. S/120/61/000/006/016/041
E032/E114

Ref.1: R.J. Jones, A. Zucker.

Rev. Scient. Instrum., 1954, v.25, no.6, 562.

Ref.2: C.E. Anderson, K.W. Ehlers.

Rev. Scient. Instrum., 1956, v.27, no.10, 809.

SUBMITTED: April 28, 1961

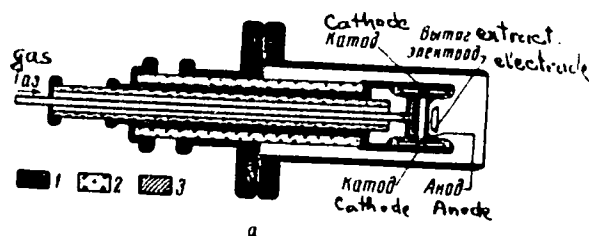


Fig. 1a

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E032/E114

26.2310

AUTHORS: Bolotin, L.I., Markin, P.S., Kulygin, Yu F.,
Skoromnyy, G.M., and Meleshkov, S.I.

TITLE: A spark source of multiply charged ions

PERIODICAL: Priory i tekhnika eksperimenta no.6, 1961. 88 90

TEXT: A.A. Plyutto K.P. Kervalindze and I.F. Kvartskhava
(Ref.2: Atomnaya energiya v.3, no.8, 1957, 153) have described
a spark source producing large currents of multiply charged ions
of various elements with a total ion current of 1 amp. The aim
of the present work was to improve the spark source so that it
can be used to obtain large currents of N^{+4} and C^{+4} suitable
for injection into a linear accelerator. The source is
illustrated schematically in Fig.1 and differs from that
described in Ref.2. The spark discharge takes place in the AlN
channel, which means that one can use both positive and negative
half-periods of the oscillatory circuit supplying the spark and
exclude ions of elements present in the porcelain tube. During
a high-power discharge, the products of decomposition of AlN
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are ionized and set up a pressure in the channel, which ejects the plasma into the solenoid. The discharge current passing through the solenoid produces an axial magnetic field which prevents ion diffusion in the plane perpendicular to the magnetic field. The ions are extracted by a voltage of 15 to 20 kV. The beam is then focussed by an electrostatic lens and is accelerated to 50 keV. The pressure in the system is maintained at 10^{-6} mm Hg. It was found that with a frequency of 10 k/sec the following currents could be produced:

200 μ A (C^{+3}), 300 μ A (C^{+3}), 300 μ A (N^{+3}), 200 μ A (O^{+3}). At $f = 5 \times 10^5 - 10^6$ cps (spark length 10-15 μ m) the ions N^{+4} and N^{+5} were found to appear. Fig. 2 shows a typical spectrum obtained with $V_c = 38$ kV, $L = 5$ μ H and $C = 0.02$ μ F. The ion spectrum obtained from the spark source contains 22 components and 30% of the total current is due to nitrogen ions. The energy spread of the ions is about 2 to 3 keV and depends on the spark discharge potential difference. The performance of the source depends on the number of pulses which it has produced. After 10^6 pulses the total ion current decreases by a factor of 2.
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A spark source of multiply

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The maximum current which can be obtained with the AlN discharge channel is 15 mA. The source produced 100 μ A of N^{+4} in a pulse of 15 μ sec and 300 to 500 μ A of N^{+3} and C^{+3} in a pulse of 500 μ sec. The power consumed by the source and the ion-optical system is 500 W. The present results differ from those reported in Ref.2. The difference is ascribed to the fact that the present authors measured the true current (i.e. the current beyond the focusing system and the accelerating tube). There are 4 figures and 5 references; 2 Soviet-bloc and 3 non-Soviet-bloc. The English language references read as follows:

- Ref. 3: W. Bleakney, Phys.Rev., 1929, v.34, 157.
- Ref. 4: W. Bleakney, Phys.Rev., 1930, v.35, 139.
- Ref. 5: W. Bleakney, Phys.Rev., 1930, v.36, 1303.

SUBMITTED: April 28, 1961

Card 3/8

ZUSMAN, V.G., kandidat tekhnicheskikh nauk; MARKIN, P.V., inzhener.

Stepless electronic drive for machine tools. Stan.i instr.
18 no.8:1-10 Ag '47. (MLRA 9:1)

1. Eksperimental'nyy nauchno-issledovatel'skiy institut metallo-reshushchikh stankov.

(Machine tools--Electric driving) (Electronic control)

MARKIN, P.V., inzh.; NAYDIS, V.A., inzh.

Controlled electric drive of metal-cutting machines in West
Germany. Elektrichestvo no.7:78-81 J1 '58. (MIRA 11:8)
(Germany, West--Machine tools--Electric driving)

GEKTIN, P.L., doktor med.nauk (Magnitogorsk, ul. Lesnaya, d.12a, kv.40);
MARKIN, P.Ya.

Treatment of cavernoma of the liver. Nov.khir.arkh. no.6:86-87
N-D '59. (MIRA 13:4)

1. Tret'ye khirurgicheskoye otdeleniye Magnitogorskoy pervoy
gorodskoy bol'nitsy.
(LIVER--TUMORS)

MARKIN, P. (a. writer, rsk)

L. form energy with the presence of a third accessory atom.

(TIMBYS--ABNORMALITIES AND DEFORMITIES)

PUSHKIN, P.; YAKIMENKO, A.; CHIMBAROV, M.; MARKIN, S.

Labor productivity indices in the artificial leather
industry. Biul.nauch.inform: trud i sar.plata 3 no.7:
9-15 '60. (MIRA 13:8)

(Leather, Artificial)
(Labor productivity)

SUKHANOV, A.I., inzh. (Volgograd); MARKIN, S., inzh. (Volgograd)

Urgent tasks in developing the lime industry. Stroi. mat. 9
no.6:6 Je '63. (MIRA 17:8)

84453

S/057/60/010/000/020/021
R019/R054

26.2532

AUTHORS: Vlasov, V. P. and Markin, S. A.

TITLE: The Solution of the Unsteady Heat Conduction Problem for a Rod With Two Masses Attached to Its Ends. The Calculation of a Differential Thermobattery

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 9, pp. 1128-1133

TEXT: The authors investigated the temperature distribution in a one-dimensional rod, to the ends of which masses are attached which are placed in media whose temperature changes linearly. The problem is formulated in the first part of the paper. The authors write down the linear heat conduction equation, and indicate the boundary conditions. The differential equation system set up here is solved with the aid of a contour integral by means of a meromorphic function which is found when solving the differential equation $aY''(x) - bY(x) - \lambda^2 Y(x) = \varphi(x)$. The solution obtained for the problem studied is used for the calculation of a Chromel-Copel differential battery. The construction of the latter is described with

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The Solution of the Unsteady Heat Conduction
Problem for a Rod With Two Masses Attached to
Its Ends. The Calculation of a Differential
Thermobattery

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B019, B054

the aid of Fig. 1. Fig. 2 graphically shows the experimental values obtained for the time dependence of the thermoelectromotive force of a battery with 50 thermocouples at a temperature jump from 20° to 50° C. The theoretical curve calculated with the solution obtained here shows a good agreement. The authors thank Docent M. L. Rasulov for valuable remarks. There are 2 figures and 5 Soviet references.

SUBMITTED: April 8, 1959

Card 2/2

MARKIN, S. G.

✓ 4658. STARTING BURNER FOR BOILERS FIRED WITH LEAN COAL. Boev, I. F., Litvak, N. R., Markin, S. G. and Polsterov, K. Ya. (Energetik (Piv. Engr, Moscow), June 1954, 1-5). An illustrated description is given of auxiliary burners used for starting up and low-load operation of a pulverized fuel boiler. There are two auxiliary pulverized coal burners, each with an oil burner below it, in a small auxiliary combustion chamber with a brick hearth. (L).

BOYEV, A.F., inzhener; MARKIN, S.G., inzhener; MAROV, I.F., inzhener;
SHTEPAN, V.Ye., inzhener.

Increasing the efficiency of the boiler unit burning pulverized
lean coal. Energetik 4 no.2:10-12 F '56. (MLRA 9:5)
(Boilers)